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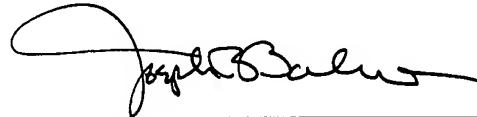
REMARKS

Prior to the examination of the above-identified application Applicants respectfully request entry of the foregoing amendments. The amendments are provided to correct antecedent basis for certain terms and to more clearly set forth Applicants' invention. No new matter is believed to have been introduced.

Attached is a marked-up version of the changes being made by the current amendment.

Applicants asks that all claims be examined. No fee is believed to be due with respect to the filing of this paper, however, should any required fee be due please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,



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Version with markings to show changes made

In the specification:

Paragraph "0001" is amended as follows:

--This application is a continuation and claims the benefit of priority under 35 U.S.C. §120 of U.S. Patent Application No. 09/291,932, filed on April 13, 1999, now issued as U.S. Patent No. 6,350,369 on February 26, 2002, which application claims the benefit under 35 U.S.C. §119(e)(1) to U.S. Provisional Application No. 60/081,781, filed on April 14, 1998, which is incorporated herein by reference.--

Paragraph "0049" is amended as follows:

--Polymer synthesis and preparation. Polymers were generally dissolved in tetrahydofuran, except for poly(4-vinylpyridine) and poly(vinylpyrrolidone), which were dissolved in ethanol, and poly(ethylene-co-vinyl acetate) (18% vinylacetate), 1,2-poly(butadiene), and poly(butadiene) (36% cis and 55% trans 1-4), which was dissolved in toluene. Each polymer (160 mg) was dissolved in its respective solvent (20 ml) either at room temperature or by heating to 35-40 [□]°C for several hours. Carbon black (40 mg) was added and the suspension sonicated for at least 20 minutes.--

Equation "(9)" at page 33 is amended as follows:

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$$[\text{pI50}]_{\text{pI50}} = 0.48 \log P - 0.65 [\square] \cdot M - 0.31 [\square] \cdot A - 0.60$$
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In the claims:

Claims 1, 3-5, 7-8, and 12 are amended as follows:

1. (Amended) An analyte screening system, comprising:

a sensor array comprising a plurality of different differentially responsive sensors[, having a first signal profile produced by the plurality of different differentially responsive sensors when contacted with a first analyte and a second different signal profile produced when contacted with a second analyte, wherein the difference between the first signal and the second signal being indicative of a difference in the property or properties of the first analyte and second analyte];

a measuring device, connected to the sensor array; and a computer;

the measuring device detecting a signal from [in] each of the plurality of different differentially responsive sensors when the sensor array is contacted with an analyte of interest and the computer assembling the signals from each of the sensors in the array into a sensor array signal profile;

wherein the computer is operative to compare the sensor array signal profile to at least one previously obtained signal profile [indicating a] from a standard sample not including the analyte of interest and having a known specific activity, chemical or physical property, or function, wherein the comparison of the sensor array signal profile to the at least one previously obtained signal profile is indicative of a specific activity, chemical or physical property, or function of the analyte of interest.

3. (Amended) The system of claim 2, wherein the [analyte] chemical comprises a biochemical.

4. (Amended) The system of claim 3, wherein the biochemical is selected from the group consisting of a lipid, a

hormone, a fatty acid[s], a nucleic acid, a polypeptide, and a carbohydrate.

5. (Amended) The system of claim 4, wherein the polypeptide is selected from the group consisting of an antibody, an enzyme, and a protein.

7. (Amended) The system of claim 5, wherein the enzyme is selected from the group consisting of lipases, esterases, proteases, glycosidases, glycosyl transferases, [phosphateses] phosphatases, kinases, mono- and dioxygenases, haloperoxidases, lignin peroxidases, diarylpropane peroxidases, epoxide hydrolases, nitrile hydrotases, nitrilases, transaminases, amidases, and acylases.

8. (Amended) The system of claim 1, wherein the specific activity is selected from the group consisting of an enzymatic activity, a binding activity, an inhibitory activity, and a modulating activity[;].

12. (Amended) The system of claim 1, wherein the different differentially responsive sensors are selected from the group consisting of crystalline colloidal array (CCA) containing sensors, metal oxide sensors, dye-impregnated polymers coated onto beads [of] or optical[ly] fibers, [buld] bulk conducting organic polymers, capacitance sensors, chemically-sensitive resistor sensors, and combinations thereof.